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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,274	02/15/2006	Mitsuhiro Nishina	GOT236NP	3278
23995	7590	11/15/2007		
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			EXAMINER LE, DAVID D	
			ART UNIT 3681	PAPER NUMBER
			MAIL DATE 11/15/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/568,274

Applicant(s)

NISHINA ET AL.

Examiner

David D. Le

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/15/06</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/568,274, filed on 15 February 2006. Claims 9-18 are pending.

### Documents

2. The following documents have been received and filed as part of the patent application:
  - Information Disclosure Statement, received on 02/15/06

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 9-18 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,993,350 to Lawrie et al.**

#### Claims 9-18:

Lawrie (Figs. 1-17; column 4, line 34 - column 22, line 67) discloses a powertrain system for a hybrid vehicle comprising:

- An engine (i.e., Fig. 1, element 14) having an output shaft;
- A transmission (i.e., Fig. 1, element 18) for changing and transmitting a rotation of an input shaft (i.e., Fig. 1, element 20) to wheels (i.e., Fig. 1, element 32) via an output shaft (i.e., Fig. 1, element 22), the transmission having gear positions

including a neutral position and selectively applying one of the gear positions according to a gear shift request (i.e., column 8, lines 54-56);

- A clutch (i.e., Fig. 1, element 16) for connecting and disconnecting power transmission between the output shaft of the engine (14) and the input shaft (20) of the transmission;
- A rotating electric machine (i.e., Fig. 1, element 40) connected to the input shaft (20) of the transmission for operating as an electric motor and an electric generator (i.e., column 7, lines 24-31);
- A storage element (i.e., Fig. 2, element 46) for storing an electric power supplied from the rotating electric machine (40);
- A determining means (i.e., Fig. 2, element 50) for determining whether or not the gear shifting request of the transmission exists;
- A clutch disconnection means (i.e., Fig. 2, element 56) for disconnecting the clutch (16) upon the gear shifting request of the transmission;
- A neutral position setting means (i.e., Fig. 2, element 66) for changing over the gear position of the transmission to the neutral position when the clutch has been disconnected;
- A mode selecting means (i.e., Fig. 2, element 44) for selectively operating the rotating electric generator in a motor mode and in a power generating mode so that a rotational speed of the input shaft (20) of the transmission reaches a region of a synchronizing rotational speed depending on a requested gear position (i.e., column 9, lines 14-20; Fig. 4, column 11, line 31 – column 12, line 36);

- A gear setting means (i.e., Fig. 2, being the combination of elements 52 and 54) for setting the gear position of the transmission from the neutral position to the requested gear position;
- Wherein the mode selecting means (44) is configured to operate the rotating electric machine (40) in the motor mode or in the power generating mode in accordance with a charging state of the storage element (i.e., column 7, line 24 – column 10, line 3);
- Wherein the mode selecting means (44) is configured to calculate the region of the synchronizing rotational speed of the input shaft (20) of the transmission based upon a rotational speed of the output shaft (22) of the transmission and a gear ratio of the transmission after gear shifting, and maintain the motor mode or power generating mode currently applied until the rotating speed of the input shaft of the transmission reaches the region of the synchronizing rotational speed (i.e., column 11, line 31 – column 22, line 59);
- Wherein the mode selecting means (44) is configured to operate the rotating electric machine (40) in the motor mode in order to increase/decrease the rotational speed of the input shaft (i.e., column 7, line 24 – column 10, line 3);  
and
- Wherein the clutch disconnection means (56) is configured, when the gear shifting request of the transmission has been determined to exist, to disconnect the clutch and maintain the clutch disconnected until gear setting to the requested gear position completes, if the vehicle is traveling by an output of the engine, and

to disconnect the clutch and maintain the clutch disconnected even after gear setting to the requested gear position completes, if the vehicle is traveling by an output of the rotating electric machine (i.e., column 17, line 11 - column 19, line 25).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

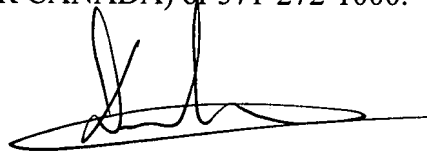
- Kima (U. S. Patent No. 6,645,105) teaches a power transmission apparatus for a hybrid vehicle, as shown in Fig. 2.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'David D. Le', with a long horizontal flourish extending to the right.

David D. Le  
Primary Examiner  
Art Unit 3681  
11/09/2007

ddl